

Claims

1. A method for reducing audio overhang in a wireless call comprising the steps of:

5 receiving voice frames that convey voice information for the wireless call, wherein at least some of the frames, silent frames, indicate that a portion of the wireless call comprises low voice activity or no voice activity;

10 monitoring the number of voice frames stored in a frame buffer after being received; and

15 when the number of voice frames stored in the frame buffer exceeds a size threshold, deleting at least one silent frame that was received thereby preventing conversion of the at least one silent frame to audio.

2. The method of claim 1 wherein the step of deleting comprises the steps of:

scanning the frame buffer for consecutive silent frames that number more than a threshold number of silent frames; and

20 deleting a percentage of the consecutive silent frames that number more than the threshold number.

3. The method of claim 1 wherein the step of deleting comprises the steps of:

25 determining that a threshold number of consecutive silent frames have been stored in the frame buffer; and

deleting a percentage of subsequent consecutive silent frames.

4. The method of claim 1 wherein the step of deleting comprises the steps of:

receiving a last voice frame that is the last voice frame of a dispatch session within the dispatch call;

5 determining that a threshold number of silent frames have been consecutively stored in the frame buffer prior to the last voice frame; and deleting a percentage of prior consecutive silent frames.

5. The method of claim 1 wherein the step of deleting comprises deleting the at least one silent frame when the number of voice frames stored in the frame buffer exceeds the size threshold and an audio overhang reduction feature is enabled.

6. The method of claim 1 wherein the size threshold is the number of voice frames that would comprise approximately 500 milliseconds of audio.

7. The method of claim 1 wherein the silent frames have been marked by a mobile station from which the silent frames originated to indicate when received that the silent frames convey low voice activity or no voice activity.

8. The method of claim 1 wherein the steps of the method are performed by a mobile station in the wireless call.

9. The method of claim 8 wherein the step of receiving comprises receiving voice frames via Radio Link Protocol (RLP).

10. The method of claim 8 wherein the step of receiving comprises receiving voice frames via a Forward Error Correction.

11. The method of claim 8 further comprising the step of regularly extracting a next voice frame from the frame buffer for de-vocoding into an audio signal.

5 12. The method of claim 8 wherein the wireless call is a dispatch call.

13. The method of claim 8 wherein the step of receiving comprises the step of receiving a voice frame that is the last voice frame of a dispatch session within the dispatch call and wherein the method further comprises
10 the step of indicating to a user of the mobile station, upon receiving the last voice frame of a dispatch session, that the dispatch session has ended and that another dispatch session may be initiated by the user.

14. The method of claim 1 performed by fixed network equipment
15 facilitating the wireless call.

15. The method of claim 14 further comprising the step of extracting voice frames from the frame buffer for transmission to at least one mobile station in the wireless call.

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16. A mobile station (MS) comprising:

a frame buffer;

a receiver adapted to receive voice frames that convey voice information for a wireless call, wherein at least some of the frames, silent frames, indicate that a portion of the wireless call comprises low voice activity or no voice activity; and

a processor adapted to monitor the number of voice frames stored in the frame buffer after being received and adapted to delete at least one silent frame that was received thereby preventing conversion of the at least one silent frame to audio, when the number of voice frames stored in the frame buffer exceeds a size threshold.

17. The MS of claim 16 wherein the processor is further adapted to regularly extract a next voice frame from the frame buffer and to decode the next voice frame into an audio signal.

18. Fixed network equipment (FNE) comprising:
- a frame buffer;
 - a receiver adapted to receive voice frames that convey voice information for a wireless call, wherein at least some of the frames, silent frames, indicate that a portion of the wireless call comprises low voice activity or no voice activity; and
 - a processor adapted to monitor the number of voice frames stored in the frame buffer after being received and adapted to delete at least one silent frame that was received thereby preventing conversion of the at least one silent frame to audio, when the number of voice frames stored in the frame buffer exceeds a size threshold.
19. The FNE of claim 18 further comprising a transmitter, wherein the processor is further adapted to extract voice frames from the frame buffer and to instruct the transmitter to transmit the extracted voice frames to at least one mobile station in the wireless call.